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Criterion Field Contents

Title	TI	[] LUBRICATING COMPOSITION
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Abstract	AB	PURPOSE: To obtain a lubricating composition excellent in frictional and wear characteristics by incorporating a specified molybdenum compound, acidic phosphoric ester (amine salt) and sulfurized compound each in a specified amount into a base oil or base grease. CONSTITUTION: This composition is obtained by mixing 100 pts.wt. base oil or base grease with 0.01-10 pts.wt. oil-soluble molybdenum compound obtained by reacting at least one hexavalent molybdenum compound selected from MoO ₃ , H ₂ MoO ₄ and an alkali salt (including an ammonium salt) thereof with an aromatic compound of formula I (wherein R ₁ and R ₂ are each H or a 1-30C hydrocarbon group except for the case where all of them are H at the same time, provided that the total of the number of carbon atoms thereof is 4 to 60), 0.1-10 pts.wt. acidic phosphoric ester (amine salt) consisting of 100-20mol% acidic phosphoric ester of formula II (wherein R ₃ and R ₄ are each H or a 4-20C hydrocarbon group except for the case where all of them are H at the same time) and 0-80mol% amino compound of formula III (wherein R ₅ and R ₆ are each H or a 4-30C hydrocarbon group except for the case where all of them are H at the same time), and 0.1-10 pts.wt. sulfur compound (e.g. a sulfurized olefin). COPYRIGHT: (C)1994,JPO&Japio

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(54) LUBRICATING COMPOSITION

(57) Abstract

PURPOSE: To obtain a lubricating composition excellent in frictional and wear characteristics by incorporating a specified molybdenum compound, acidic phosphoric ester (amine salt) and sulfurized compound each in a specified amount into a base oil or base grease.

CONSTITUTION: This composition is obtained by mixing 100 pts.wt. base oil or base grease with 0.01-10 pts.wt. oil-soluble molybdenum compound obtained by reacting at least one hexavalent molybdenum compound selected from MoO_3 , H_2MoO_4 and an alkali salt (including an ammonium salt) thereof with an amino compound of

formula I (wherein R_1 and R_2 are each H or a 1-30C hydrocarbon group except for the case where all of them are H at the same time, provided that the total of the number of carbon atoms thereof is 4 to 60), 0.1-10 pts.wt. acidic phosphoric ester (amine salt) consisting of 100-20mol% acidic phosphoric ester of formula II (wherein R_3 and R_4 are each H or a 4-20C hydrocarbon group except for the case where all of them are H at the same time) and 0-80mol% amino compound of formula III (wherein R_5 and R_6 are each H or a 4-30C hydrocarbon group except for the case where all of them are H at the same time), and 0.1-10 pts.wt. sulfur compound (e.g. a sulfurized olefin).

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Japanese Laid-Open Patent Publication (Kokai) No. 100880/94

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Japanese Patent Application No. 249857/92

Filed : September 18, 1992

Inventors : T. Kamakura et al.

Applicant : Asahi Denka Kogyo K.K.

Title of Invention: Lubricating Compositions

Claim

1. A lubricating composition comprising:

(a) 0.01 to 10 parts by weight of an oil-soluble molybdenum compound obtained by reacting one or more hexavalent molybdenum compounds selected from molybdenum trichloride and molybdic acid or alkali salts thereof (including ammonium salts) with an amino compound represented by the following general formula (1),



wherein R_1 and R_2 denote hydrogen atoms or the same or different saturated or unsaturated hydrocarbon radicals having 1 to 30 carbon atoms, but all of them are not hydrogen atoms at the same time, and the total number of carbon atoms of R_1 and R_2 is from 4 to 60;

(b) 0.1 to 10 parts by weight of an acid phosphate (amine salt) composed of 100 to 20 mol % of an acid phosphate represented by the following general formula (2) and 0 to 80 mol % of an amino compound represented by the following general formula (3),



wherein R_3 and R_4 denote hydrogen atoms or the same or different saturated or unsaturated hydrocarbon radicals having 4 to 20 carbon atoms, but all of them are not hydrogen atoms at the same time,



wherein R_1 and R_2 denote hydrogen atoms or the same or different saturated or unsaturated hydrocarbon radicals having 4 to 30 carbon atoms, but all of them are not hydrogen atoms at the same time; and

(c) 0.1 to 10 parts by weight of a compound containing sulfur, relative to 100 parts by weight of a base oil or base grease.

Detailed Description of the Invention

..... (omitted)

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